

REMARKS

Claims 1-19, 21-22 and 24-29 are currently pending in this application. By this Amendment, Claims 1-3, 11 and 17 have been amended.

I. Double Patenting

Claims 1-2 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8-9 of U.S. Patent No. 6,754,520. Applicants have submitted a terminal disclaimer with this Amendment, which should thereby obviate this rejection.

II. Rejection of Claim 1 under §102 – Townsend

Claim 1 was rejected under 35 USC §102(e) as being clearly anticipated by Townsend (United States Patent No. 6,490,476). Claim 1, as amended, recites, in pertinent part, a medical imaging apparatus comprising:

“a CT imaging device for obtaining one or more tomographic images of a subject patient, the CT imaging device having a first housing which defines a bore through which the patient axially translates during formation of one or more images by the device; a nuclear camera imaging device for obtaining one or more tomographic images of the subject patient, nuclear camera imaging device having a second housing which defines a bore through which a patient axially translates during formation of the images by the device, which *first and second housings are selectably securable in a fixed abutting position to one another* during the formation of one or more images of the subject patient, in which fixed position the bore of each device is substantially aligned axially with the bore of the other; and

when the first and second housings are secured in a fixed abutting position to one another, the bores of the CT and nuclear camera imaging devices are spaced apart by a distance sufficient to

allow direct access by a caregiver to a portion of the subject patient which is positioned between the first and second bores, the spacing between the bores is free of obstructions in a region above the subject patient.” (emphasis added).

Townsend discloses two embodiments: the first embodiment shown in Figure 2a, reproduced below, is a PET/CT scanner disposed within a single gantry and the second embodiment shown in Figure 2b, reproduced below, is a PET/CT scanner, wherein the detectors are disposed in separate gantries.

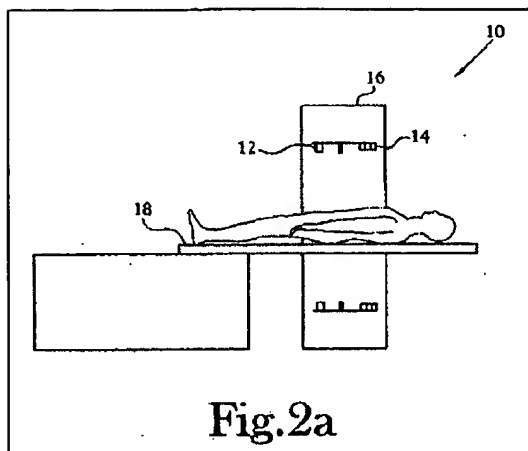


Figure 2a from US Patent No. 6,490,476

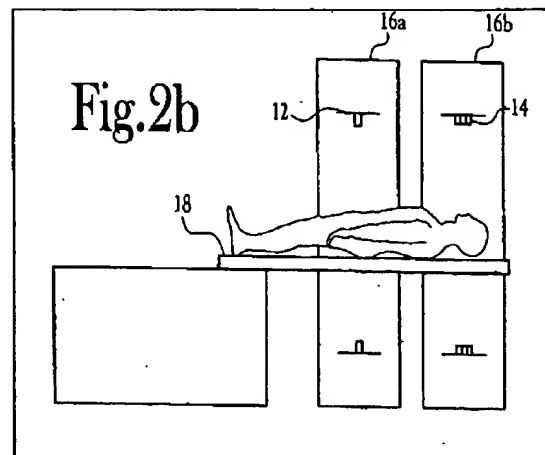


Figure 2b from US Patent No. 6,490,476

Clearly, Townsend's first embodiment does not include a first and second housing, let alone an opening formed between a first and second housing. The Office Action states that Figure 2b provides the teaching of the opening between the first and second housing. While it is true that there is an opening between housing 16a and 16b, the housings are not selectable securable in a fixed abutting position to one another. Further, as shown in Figure 2b, of Townsend, if 16a and 16b were placed in an abutting relationship to one another, there would not be an opening between the two imaging devices.

Since Townsend does not disclose each element of the claimed invention, Townsend does not anticipate claim 1, as amended. Reconsideration of this rejection is respectfully requested.

III. Rejection of Claim 2 under §102 – Townsend

Claim 2 was rejected under 35 USC §102(e) as being clearly anticipated by Townsend (United States Patent No. 6,490,476). Claim 2 recites, in pertinent part, an imaging apparatus comprising:

“separable first and second imaging devices for obtaining one or more images of a patient, wherein the patient is substantially aligned with the imaging axis;
a first housing which houses the first imaging device and defines a first bore; and
a second housing which houses the second imaging device and defines a second bore;
projecting engageable securement structures which extend from at least one of the first housing and the second housing *to fixedly attach the first and second imaging devices in positions abutting each other* and fixed relative to the imaging axis; and
an opening formed between the first and second bores when the first and second housings are abutting through which opening a caregiver can have line-of-sight visual contact with the patient that is aligned with the imaging axis and extends between the first and second imaging devices.” (emphasis added).

Townsend discloses two embodiments: the first embodiment shown in Figure 2a, reproduced below, is a PET/CT scanner disposed within a single gantry and the second embodiment shown in Figure 2b, reproduced below, is a PET/CT scanner, wherein the detectors are disposed in separate gantries.

Clearly, Townsend's first embodiment does not include a first and second housing, let alone an opening formed between a first and second housing. The Office Action states that Figure 2b provides the teaching of the opening between the first and second housing. While it is true that there is an opening between housing 16a and 16b, the housings do not include projecting engageable securement structures that fixedly attach the first and second imaging devices in positions abutting each other. Further, as shown in Figure 2b of Townsend, if 16a and 16b were placed in an abutting relationship to one another, there would not be an opening between the two imaging devices.

Since Townsend does not disclose each element of the claimed invention, Townsend does not anticipate claim 2. Reconsideration of this rejection is respectfully requested.

IV. Rejection under §103 – Townsend & Robinson

Claims 3-19, 21-22 and 24-29 have been rejected under 35 USC §103(a) as being unpatentable over Townsend (United States Patent No. 6,490,476) in view Robinson (United States Patent No. 6,637,453). The Office Action states that Townsend teaches all of the features of the instant invention except for a fluid control surface positioned beneath the patient support structure and between the first and second imaging devices for directing liquids falling onto the surface from the vicinity of the patient support structure away from the subject patient. The Office Action concludes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Townsend with the feature of Robinson to arrive at the claimed invention. For the following reasons, Applicants respectfully disagree.

Claim 3

Claim 3, as amended recites, in pertinent part, a medical imaging device comprising:

“a first tomographic medical imaging device having an opening for receipt of a subject patient;

a second tomographic medical imaging device having an opening for receipt of the subject patient...

which imaging device support structure forms *a patient access area between the first and second imaging devices* through which a caregiver can directly observe the subject patient between the openings of the first and second imaging devices; and

an arcuate surface which is formed as a portion of a housing of either the first or second medical imaging device and positioned between the first and second imaging devices underneath the patient support structure *when the imaging devices are secured together.*" (emphasis added).

Townsend does not teach a first and second imaging device that are capable of being secured together. If Townsend's imaging devices are somehow secured together, there is no patient access area. Townsend does not teach or disclose an arcuate surface formed as a portion of an imaging device housing.

Robinson does not remedy either of these defects in Townsend. Clearly Robinson is not applicable to demonstrate a patient access area that is present when first and second imaging devices are secured together. Robinson further does not teach or disclose forming an arcuate surface as part of an imaging device housing. Instead, Robinson teaches a separate device that sits on the floor of an operating room for collecting fluids. Although Robinson states that an operating room floor can encompass many different locations underneath a patient, Robinson also states that the device is to be "disposable" and "placeable." (Column 6, lines 55-67). This requires a separate piece that can be removed and disposed periodically and then a new piece that is placed underneath the patient. A portion of an imaging device housing does not meet these requirements. As such, Robinson does not remedy the defects in Townsend.

Since the combination of references does not disclose or teach every element of the claimed invention, the combination of references does not render claim 3 obvious. Reconsideration of this rejection is respectfully requested.

Furthermore, it should be noted that Townsend discloses nothing about the collection, diversion, or drainage of fluids. Consequently, there is absolutely no motivation to combine Townsend with Robinson. Such a combination is a result of impermissible hindsight. For this additional reason, the combination of Townsend and Robinson does not render claim 3 obvious.

Claim 10

Claim 10, recites, in pertinent part, a medical imaging apparatus comprising:

“a first medical imaging device having a first bore;
a second medical imaging device having a second bore;
a patient support structure which supports a subject patient during imaging; and
a support structure for securing the first and second bores in a fixed spatial relationship, which support structure forms a patient access area between the first and second imaging devices and includes:
a fluid control surface positioned beneath the patient support structure and between the first and second imaging devices for directing liquids falling onto the surface from the vicinity of the patient support structure away from the subject patient.” (emphasis added).

Townsend does not teach a support structure for securing the first and second bores in a fixed spatial relationship. Although Townsend states that gantries 12 and 14 are fixed relative to each other, Townsend does not disclose a support structure that provides the fixed relationship. Figure 2B clearly shows that there is no structure

provided between the gantries providing a fixed relationship of the gantries. Furthermore, Townsend does not teach anything about fluid control, let alone a fluid control surface that is formed as part of the support structure between the imaging devices.

Robinson does not remedy any of these defects in Townsend. Robinson clearly has nothing to do with imaging devices and as such has nothing to do with the positioning of the gantries. Since Robinson has nothing to do with imaging device gantries, Robinson cannot have anything to do with a support structure that provides a fixed spatial relationship between the gantries or bores and includes a fluid control surface thereon. Although Robinson generally teaches a fluid control system, its similarities stop there. Robinson teaches a separate, placeable, disposable device located on an operating room floor for collecting fluids. Such a device cannot be used as claimed support structure.

Since the combination of references does not disclose or teach every element of the claimed invention, the combination of references does not render claim 10 obvious. Reconsideration of this rejection is respectfully requested.

Furthermore, Townsend discloses nothing about the control of fluids. Consequently, there is absolutely no motivation to combine Townsend with Robinson. Such a combination is a result of impermissible hindsight. For this additional reason, the combination of Townsend and Robinson does not render claim 10 obvious.

Claim 11

Claim 11, as amended recites, in pertinent part, a medical imaging apparatus comprising:

"a housing having a first scanner and a second scanner, each scanner having a bore for obtaining tomographic imaging information from at least a portion of a patient, which housing positions each of the first and second scanner bores in fixed

positions apart from the other during scanning operations and forms a patient access area between the first and second scanner bores to allow direct access by a caregiver to the patient extending through the first scanner bore and at least partially positioned between the first and second scanners; and a substantially continuous arcuate surface which is formed from a portion of said housing in an axial direction, which arcuate surface has a peak located underneath the patient and extends outwardly and downwardly from the peak and toward lateral sides of the housing.” (emphasis added).

Townsend does not teach a housing that positions each of the first and second scanner bores in fixed positions and forms a patient access area between the first and second scanner bores. Townsend’s embodiment shown in Figure 2A includes a common housing, but does not include a patient access area between the scanner bores. Townsend’s embodiment shown in Figure 2B does have an area between the scanner bores, but does not teach a housing that provides fixed positions for the scanner bores. Furthermore, Townsend does not teach an arcuate surface formed from a portion of the housing.

Robinson does not remedy any of these defects in Townsend. Robinson does not have anything to do with scanner bores and thus does not provide anything that remedies the defect in Townsend related to the imaging apparatus housing. While Robinson does teach an object that includes an arcuate surface, Robinson certainly does not teach such a surface that is formed as a portion of a medical imaging apparatus housing.

Since the combination of references does not disclose or teach every element of the claimed invention, the combination of references does not render claim 11 obvious. Reconsideration of this rejection is respectfully requested.

Claim 17

Claim 17, as amended recites, in pertinent part, a medical imaging method comprising:

“providing a housing having a first scanner and a second scanner, each scanner having a bore for obtaining tomographic imaging information from at least a portion of a patient; positioning each of the first and second scanner bores in fixed positions apart from the other during scanning operations; forming a patient access area in said housing between the first and second scanners bores to allow direct access by a caregiver to a patient extending through the first scanner bore and at least partially positioned between the first and second scanners to allow direct access to the patient by a caregiver through the patient access area formed between the first and second scanners; and defining a lower end of the patient access area with an arced surface underneath the patient” (emphasis added).

Townsend does not teach a method that includes providing a housing with a first and second scanner and forming a patient access area in the housing. Townsend's embodiment shown in Figure 2A illustrates forming a common housing for a first and second scanner, but does not illustrate forming a patient access area in the housing between the scanner bores. Townsend's embodiment shown in Figure 2B does form an area between the scanner bores, but does not provide a housing with first and second scanners. Furthermore, Townsend does not teach defining a lower end of the patient access area with an arced surface underneath the patient.

Robinson does not remedy any of these defects in Townsend. Robinson does not teach a medical imaging method and thus does not provide a housing with first and second scanners and does not form a patient access area in the housing. While Robinson does teach an arced surface underneath the patient, such surface is not defined at a lower

end of a patient access area that is formed in a housing. Robinson teaches placing a disposable device on an operating room floor. Such a device cannot be used to provide a housing for two medical imaging scanners.

Since the combination of references does not disclose or teach every element of the claimed invention, the combination of references does not render claim 17 obvious. Reconsideration of this rejection is respectfully requested.

Claim 22

Claim 22, as amended recites, in pertinent part, a medical imaging apparatus comprising:

“a first scanning device for obtaining imaging information from a patient when the patient is disposed in a scanning position;
a housing which houses the first scanning device, the housing defining a drainage surface disposed below at least a portion of a patient support surface, when the patient is in the scanning position, which drainage surface slopes downwardly and away from the patient to drain fluids falling to the surface from the vicinity of the patient, when the patient is in the scanning position.” (emphasis added).

Townsend does not teach a housing that defines a drainage surface. Townsend does not teach or disclose *anything* about fluids, let alone a drainage surface defined in the scanning device housing.

Robinson does not remedy this defect in Townsend. Robinson has absolutely nothing to do with medical imaging devices, and thus does not disclose anything regarding a drainage surface defined in a scanning device housing. Although Robinson does generally disclose a fluid control surface, such surface is disposable and placeable

on an operating room floor. Robinson's device is not a scanning device housing, nor can it be used to house a scanning device.

Since the combination of references does not disclose or teach every element of the claimed invention, the combination of references does not render claim 22 obvious. Reconsideration of this rejection is respectfully requested.

Furthermore, Townsend discloses nothing about the control of fluids. Consequently, there is absolutely no motivation to combine Townsend with Robinson. Such a combination is a result of impermissible hindsight. For this additional reason, the combination of Townsend and Robinson does not render claim 22 obvious.

V. Dependent Claims

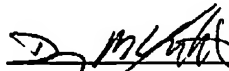
Applicants submit that each of the dependent claims are novel and non-obvious over the cite references for *at least* the reasons stated above.

VI. Conclusion

For the foregoing reasons, Applicants submit that this application is now in condition for allowance. The Examiner is encouraged to contact the undersigned if such contact would facilitate the prosecution of this application. Please charge any deficiency or credit any overpayment to our Deposit Account No. 14-1270.

Respectfully submitted,

Date: 7/19/05



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